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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MISLEH, JUSTIN P

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 10/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/399,866

Applicant(s)

NEEDHAM, BRADFORD H.

Examiner

Justin P Misleh

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 6, and 7 - 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 - 20 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6, and 7 is/are rejected.
- 7) ☒ Claim(s) 8 - 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The Examiner handling future prosecution of this Application and authoring this Office Action would like to inform the Applicant that the Examiner handling the previous prosecution of this Application and authoring the Non-Final Office Action (Paper No. 5) are different and all future communication regarding this Application should be directed to the Examiner authoring this Office Action. The Examiner's contact information can be found at the end of this Office Action.

Response to Arguments

1. The Examiner notes that this Office Action is in response to the *Amendment* filed 07 August 2003. The Examiner does not believe the application is in condition for allowance. New grounds of rejection have been made with respect to previously cited prior art and this Office Action is meant to replace the Non-Final Office Action (Paper No. 5) mailed on 4 June 2003.
2. Applicant's arguments filed 07 August 2003 with respect to claims 7 and 8 have been fully considered but they are not persuasive and the Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new grounds of rejection.
3. In regards to **claims 7 and 8**, the Applicant argues ... Kim does not disclose three image buffers, more specifically only a previous image buffer and a permanent image buffer. The Examiner disagrees with the Applicant's argument; the three image buffers defined by Kim are the image capturing unit (212), which functions as a current image buffer, the previous image temporary memory (214), which functions as the previous image buffer, and the permanent

Art Unit: 2612

image storing unit (218), which function as the candidate buffer for storing the images in which motion is detected.

4. The Examiner accepts and acknowledges the changes to the specification made by the Applicant in the amendment. There are no further objections to the specification and/or drawings by the Examiner.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1, 2, 4, 6

6. **Claims *1, 2, 4, 6* and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim.

7. For **claim 1**, Kim discloses, as shown in figures 2, 3, and 4 and as stated in columns 2 (lines 41 – 67), 3, and 4 (lines 1 – 31), a camera system for downloading pictures to a computer (220) comprising: a video camera (222); a processor (216) that selects images captured by the video camera in accordance with a plurality of motion detection algorithms, a first motion detection algorithm capturing a current image frame when a pixel comparison between successive image frames exceeds a predetermined threshold and a second motion detection algorithm capturing a stable frame after a certain duration had lapsed since the predetermined threshold has been exceeded.

Kim simply teaches of a video surveillances camera connected to a computer wherein a currently captured image is compared to a previously captured image to detect changes in

Art Unit: 2612

luminance. If the difference in the luminance changes from image to image then the image in which the changes were detected is selected for permanent storage. Kim uses three image buffers, of which include a current image buffer, a previous image buffer, and a candidate buffer, to operate the surveillance system. The current image buffer (212) captures a current image and in conjunction with the control unit (216) calculates luminance values for the current image. The previous image buffer (214) stores a previous image, which is the image, captured just prior to the current image, and in conjunction with the control unit calculates luminance values for the previous image. The luminance values from both the current and previous images are compared to each other and if the difference in values exceeds a predetermined threshold, the current image is selected for permanent storage in the candidate buffer. Regardless if the current image is selected, it is always stored in the previous image buffer to become the previous image for the next current image. If a current image is selected the time period between successive image capture is increased and if it not selected the time period is slowed. The slowing of the time period between successive image capturing is the surveillance system's method of recognizing stable image frames (i.e. no motion is being detected) and, likewise, the increasing the time period between successive image capture is the surveillance system's method of precise motion detection. Therefore, two motion detection algorithms are present with Kim, the first corresponding to motion detection and increased successive image capture and the second corresponding to stable image frames and decreased successive image capture.

Kim does not disclose the camera and computer being a combination web camera system nor does Kim disclose the ability to uploads the candidate images to a web site, however, Official Notice is taken that both the concepts and the advantages of providing a camera and

Art Unit: 2612

computer as a web camera system and uploading the candidate images are well known and expected in the art. It would have been obvious for Kim to provide a web camera system with candidate image upload a means for remote image viewing as in surveillance systems.

8. As for **claim 2**, corresponding to the Official Notice taken in regards to claim 1, it is inherent to a web based data transfer system to upload and download information at programmed intervals, hence, the theory behind packet data transfer.

9. As for **claim 4**, Kim discloses, a third motion detection algorithm that captures a recent motion frame the occurs a predetermined time period prior to the occurrence of a stable frame, the stable frame occurring after a certain duration has elapsed since the predetermined threshold has been exceeding. Regardless of the actual label of the third motion detection algorithm, the third motion detection algorithm is no different than the first motion detection algorithm; a motion is detected prior to a stable image frame capture wherein the stable image frame captured is determined by the slowing of the time period between successive image captures all of which contain no motion, as described above.

10. As for **claim 6**, Kim discloses, wherein the processor (216) includes a circular buffer (218) to successively store motion-captured images in image frames in which the predetermined threshold is exceeded. The permanent image storage unit is the candidate buffer, which stores only images in which motion has been detected.

11. For **claim 7**, Kim discloses, as shown in figures 2, 3, and 4 and as stated in columns 2 (lines 41 – 67), 3, and 4 (lines 1 – 31), a camera system for downloading pictures to a computer (220) comprising: a video camera (222); a current frame buffer to hold a current image captured by the video camera (212; the image capturing unit is the current frame buffer as stated in

Art Unit: 2612

column 2, lines 64 – 67); a previous frame buffer (214; the temporary memory stores the previous image as stated in column 2, lines 45 – 54) to hold a previous image captured prior to the current image; a candidate buffer (218; the permanent image storage unit stores selected images as stated in column 2, lines 52 – 54) to hold a most recent image; logic circuitry (216; the control unit is where the calculations are performed as stated in column 3, lines 4 – 10) to perform pixel comparison between the current image and the previous image, the logic circuitry asserting a motion signal when the pixel exceeds a predetermined threshold; the camera system operation according to one a plurality of modes (the various modes correspond to the number of pixels used the comparison, for instance the user can select to compare a few pixels or all the pixels in the viewing area as stated in column 4, lines 24 – 31) in a first mode of operation the current image is loaded into the candidate buffer responsive to the motion signal (upon the detection of a target the image is selected and transferred to the candidate buffer as stated in column 3, lines 23 – 33).

Kim simply teaches of a video surveillance camera connected to a computer wherein a currently captured image is compared to a previously captured image to detect changes in luminance. If the difference in the luminance changes from image to image then the image in which the changes were detected is selected for permanent storage. Kim uses three image buffers, of which include a current image buffer, a previous image buffer, and a candidate buffer, to operate the surveillance system. The current image buffer (212) captures a current image and in conjunction with the control unit (216) calculates luminance values for the current image. The previous image buffer (214) stores a previous image, which is the image, captured just prior to the current image, and in conjunction with the control unit calculates luminance values for the

Art Unit: 2612

previous image. The luminance values from both the current and previous images are compared to each other and if the difference in values exceeds a predetermined threshold, the current image is selected for permanent storage in the candidate buffer. Regardless if the current image is selected, it is always stored in the previous image buffer to become the previous image for the next current image. If a current image is selected the time period between successive image capture is increased and if it not selected the time period is slowed. An additional feature of Kim is that the user has the capability of selecting the number of pixels to be used in the luminance calculations. A mode of operation a defined by each and every time the user selects a different number of pixels, therefore an infinite number of modes exists and in each mode a permanent image exceeding a predetermined threshold is selected for permanent storage.

Kim does not disclose the camera and computer being a combination web camera system nor does Kim disclose the ability to uploads the candidate images to a web site, however, Official Notice is taken that both the concepts and the advantages of providing a camera and computer as a web camera system and uploading the candidate images are well known and expected in the art. It would have been obvious for Kim to provide a web camera system with candidate image upload a means for remote image viewing as in surveillance systems.

Allowable Subject Matter

12. **Claims 8, 9 and 10** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2612

The closest prior art (Kim) teaches of a camera and computer system comprised of three image buffers for a current, previous, and candidate image wherein a single mode of a plurality of modes is determined by a user by means of selecting the number of pixels used in determining whether or not motion exists in a single image, the closest prior art does not teach or suggest a mode of operation wherein the buffer for storing the candidate images is loaded with the current image after a certain duration has elapsed following the detection and/or the absence of motion.

13. **Claims 11 – 20** are allowed.

The following is a statement of reasons for the indication of allowable subject matter:
The closest prior art (Kim) teaches of a camera and computer system comprised of three image buffers for a current, previous, and candidate image wherein a single mode of a plurality of modes is determined by a user by means of selecting the number of pixels used in determining whether or not motion exists in a single image, however, the closest prior art does not teach or suggest selecting from the candidate image buffer a certain image as the candidate picture for uploading to a web site after no motion as been detected for a certain duration of time.

Art Unit: 2612

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090. The examiner can normally be reached on Monday - Friday, 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703.306.0377.

JPM
October 20, 2003



NGOC-YEN VU
PRIMARY EXAMINER